Closure Description Document for RCRA Removal of Tank 207

U.S. Department of Energy

Rocky Flats Environmental Technology Site

EPA ID No. CO7890010526

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1.0 INTRODUCTION

1.1 Purpose and Scope

Part X of the Rocky Flats Environmental Technology Site's (RFETS) RCRA Part B Permit, addresses closure of permitted storage units. Removal of the storage unit is subject to the Closure Plan, as described in Part X, and to a subsequent Closure Description Document that identifies the portions or sections of the Closure Plan that are applicable to the specific permitted unit closure

This Closure Description Document applies only to Tank 207 located in the 700 Area to the northwest of Building 776 and to the east of the cooling tower. Complete closure of the tank will be accomplished by removal of the tank.

1.2 Unit Closure Notification and Schedule

The Colorado Department of Public Health and Environment (CDPHE), Hazardous Materials and Waste Management Division is hereby notified of the Site's intent to close the tank identified in Section 4.0. The submittal of this notification is at least 45 days prior to the beginning of closure activities. Closure activities for this tank are expected to commence prior to August 1, 2001. The identified closure activities are expected to be completed within 180 days. If closure activities cannot be completed within 180 days, a request for extension will be submitted to the Division at least 30 days prior to the end of the 180 days.

Within 30 days of completion of closure activities a summary report will be submitted to CDPHE containing details about the removal of the tank.

1.3 Facility Contacts

The contacts for this closure activity at RFETS are:

Assistant Manager
For Environment and Infrastructure
Rocky Flats Field Office
U.S. Department of Energy
10808 Highway 93, Unit A
Golden, CO 80403-8200
(303) 966-4298

Environmental Safety Manager
Remediation, Industrial
D&D, & Site Services
Kaiser-Hill Company L.L.C
10808 Highway 93, Unit B
Golden, CO 80403-8200
(303) 966-6386

2.0 METHOD OF CLOSURE AND PERFORMANCE STANDARD

The components of the storage system described herein will be closed by the method described as "Debris Rule" Decontamination in the closure Plan, Section X of the RCRA Part B Permit..

3.0 SYSTEM DESCRIPTION AND WASTE CHARACTERIZATION

Tank 207 (T-29) was installed in 1952 and has not been used since the mid-1980's. Tank 207 was part of the original process waste line (OPWL) system and part of the old Operable Unit 9. The tank was used to store untreated waste from various buildings on-Site prior to treatment in B774. These wastes consisted of acids, bases, solvents, radionuclides, metals, chlorides, oils and greases. In addition, treated waste would also be stored in Tank 207 prior to discharge to the Solar Ponds, if no other storage option was available. There are 5 valve vaults located in the vicinity of this tank which transferred the waste from Tank 207 to the Solar Ponds or received waste from on-Site buildings. The valves vaults were a part of the OPWL system and are identified here for descriptive purposes only and are not part of this CDD. There are no reported releases known for this tank system. Potential for radioactive waste is expected in the tank system.

Waste treated in this process was required to be in an aqueous form.

Based on available information and interviews with past employees, this tank has been RCRA empty and locked and tagged out since 1988. If residues are encountered, they will be containerized and sampled to characterize the waste from the system. Because this tank contained radioactive liquids with various levels of contamination, prevention of release and minimization of worker exposure will be addressed in the preparation of the Integrated Work Control Program (IWCP) work package.

4.0 SPECIFIC CLOSURE ACTIVITIES

Activities will be designed to achieve the closure performance standard, protect human health and the environment, and minimize waste. Specific work instructions, with engineering, health and safety, and waste management information, will be developed prior to start of closure activities. These instructions will be developed in accordance with applicable RFETS policies and procedures. Closure activities are summarized as follows:

4.1 Establishment of System Boundaries and Scope of Removal

The boundaries for Tank 207 consist of the 200,000-gallon carbon steel above ground storage tank (AST) and associated above ground piping, and define the extent of closure activities for this closure description document. The tank will be isolated from the valve vault directly connected to the tank. The valve vault will be labeled as OPWL-OU9, IHSS 121, (see Figure 1). The valve vault is located within five feet of the tank to the north. The entire tank will be removed including all above ground ancillary piping consisting of the fill and overflow piping. The tank will be characterized and managed as low-level mixed waste, unless the waste can be surveyed and free released. Based on the types of waste identified in Section 3.0 that were stored in Tank 207, the following waste codes are assigned: F001, F002, F003, F005, F007.

The valve vaults (Figure 1) will be left in place and addressed during the Industrial Area OU remediation phase.

4.2 Preparation of Engineering and IWCP Work Packages

A unit specific IWCP/engineering work package will be prepared for the removal of Tank 207. The RFETS Health and Safety Practices Manual defines general health and safety measures to be followed at the Site. Closure activities will be conducted in accordance with this manual, incorporating the results of job specific industrial and nuclear safety related evaluations and screens.

The IWCP/engineering work package will be used to control work, including specification of personal protective equipment, methods of pipe and tank removal and size reduction, methods for containing any liquids or preventing releases to the environment, and waste packaging. As Low As Reasonably Achievable (ALARA) principles will be followed regarding personnel exposure to radiation.

5.0 DISPOSITION OF CLOSURE WASTES

It is anticipated that scrap metal and combustible wastes will be generated during closure activities. It is assumed that the Site's waste management systems will be available to receive wastes generated by these closure activities. Any liquids encountered or generated during the closure activities will be handled as outlined in section 3.0.

The tank is radioactively contaminated and will be managed in accordance with the requirements of the RFETS Radiological Control Manual, Occupational Safety and Industrial Hygiene Program Manual, and the Health and Safety Practices Manual. Due to the size of the tank, it is anticipated that the tank will be taken down in sections, size reduced to fit Site standard packaging for disposal in accordance with applicable waste acceptance criteria. If necessary, the removed sections could be temporarily staged on the concrete pad from B779 and then sized reduced for proper packaging. All waste from inside this tank is expected to be low-level mixed waste and the waste will be characterized in accordance with applicable regulations.

PPE and other combustibles used will be managed as low-level mixed waste and will be characterized in accordance with applicable regulations. All waste containers will be stored in an appropriate on-Site storage area prior to offsite disposal.

6.0 SOIL CONTAMINATION EVALUATION AND POST CLOSURE CARE

As part of the OU 9 Phase I RFI/RI surface and borehole soil sampling was conducted. See Figure 2 for the locations of the soil sampling. Two surface soil samples were collected and analyzed. Am-241, gross alpha, Pu-239/240, copper, and silver were detected above background. Methylene Chloride was the only organic detected above 1.0 microgram per kilogram (µg/kg).

Four borehole soil samples were also collected at ground surface (0-6 inches), mid-depth between the ground surface and bedrock (4.0 to 7.2 feet), and above the bedrock/alluvial contact (10.0 to 13.0 feet). None of the contaminants encountered above background were above the PRG.

Soil surrounding the tank will be left in place and addressed during the Industrial Area OU cleanup phase.

7.0 RECORDKEEPING

The following closure records will be maintained on Site during closure activities and at a federal repository for a minimum of 30 years following the report of closure:

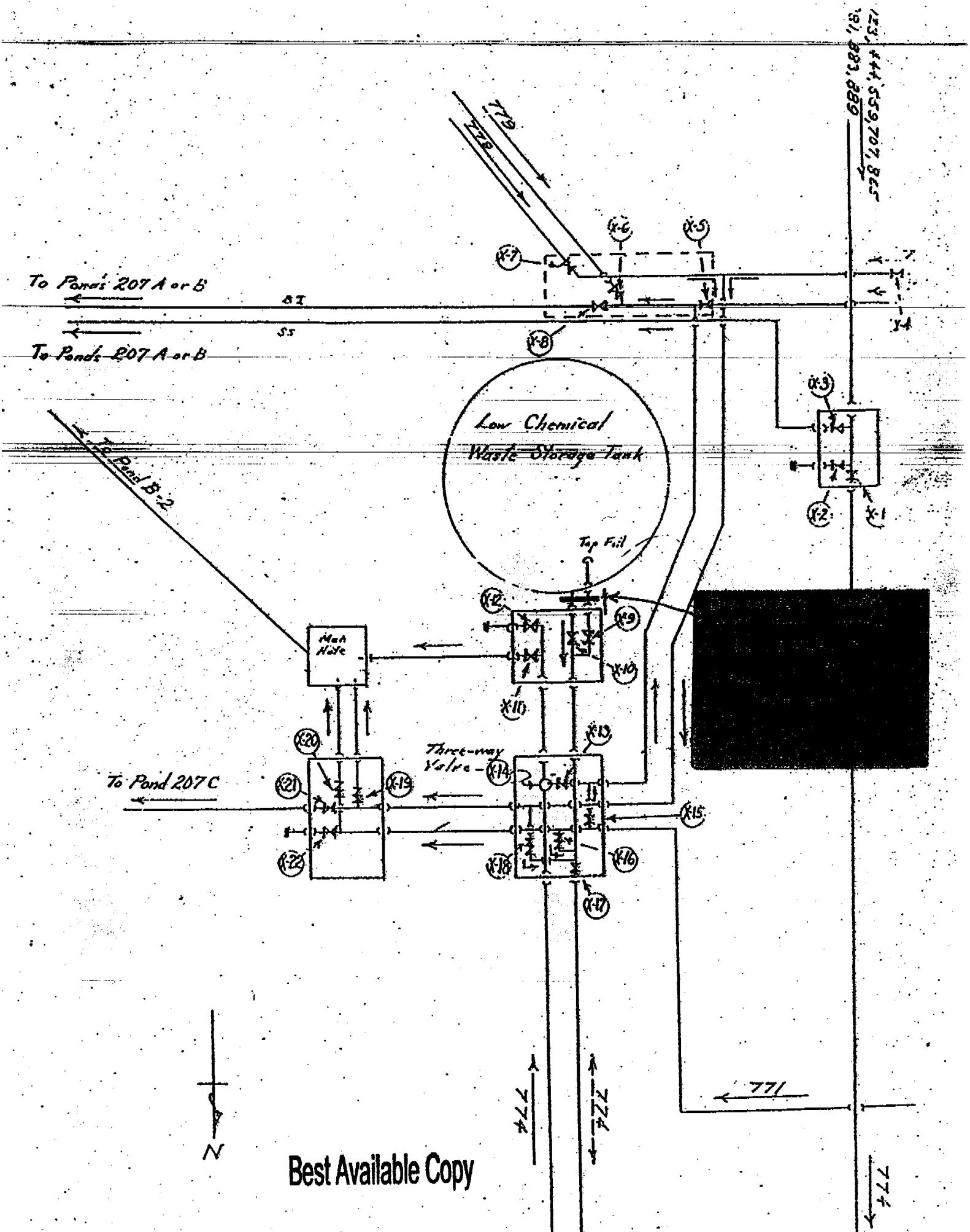
- Record of sampling activities including type, number and date of samples;
- Analytical results;
- Work instructions used to conduct closure activities and documentation verifying closure activities were conducted in accordance with the RCRA Permit and this Closure Description Document;
- Records of the volume of hazardous waste generated during closure.

8.0 AMENDMENT OF THE CLOSURE DESCRIPTION DOCUMENT

In conducting closure activities, unexpected events that are identified during implementation of closure activities may require an amendment to this Closure Description Document. Modifications to this Closure Description Document will be made in accordance with applicable regulations.

9.0 REFERENCES

1. Rocky Flats Environmental Technology Site RCRA Permit, May 5, 1998
2. Code of Colorado Regulations, Volume 6, No. 1007-3
3. Rocky Flats Environmental Technology Site Operable Unit No. 9 Outside Tanks, RFP/ERM-95-000, October 12, 1995
4. Rocky Flats Environmental Technology Site, Regulatory Contact Record, to Joe Schieffelin, January 3, 2001


To Ponds 207 A or B
SI
SS
To Ponds 207 A or B
To Pond B-2
Low Chemical
Waste Storage Tank
Top Fill
Man Hole
Three-way Valve
To Pond 207 C
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X-2
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X-4
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FIGURE 1

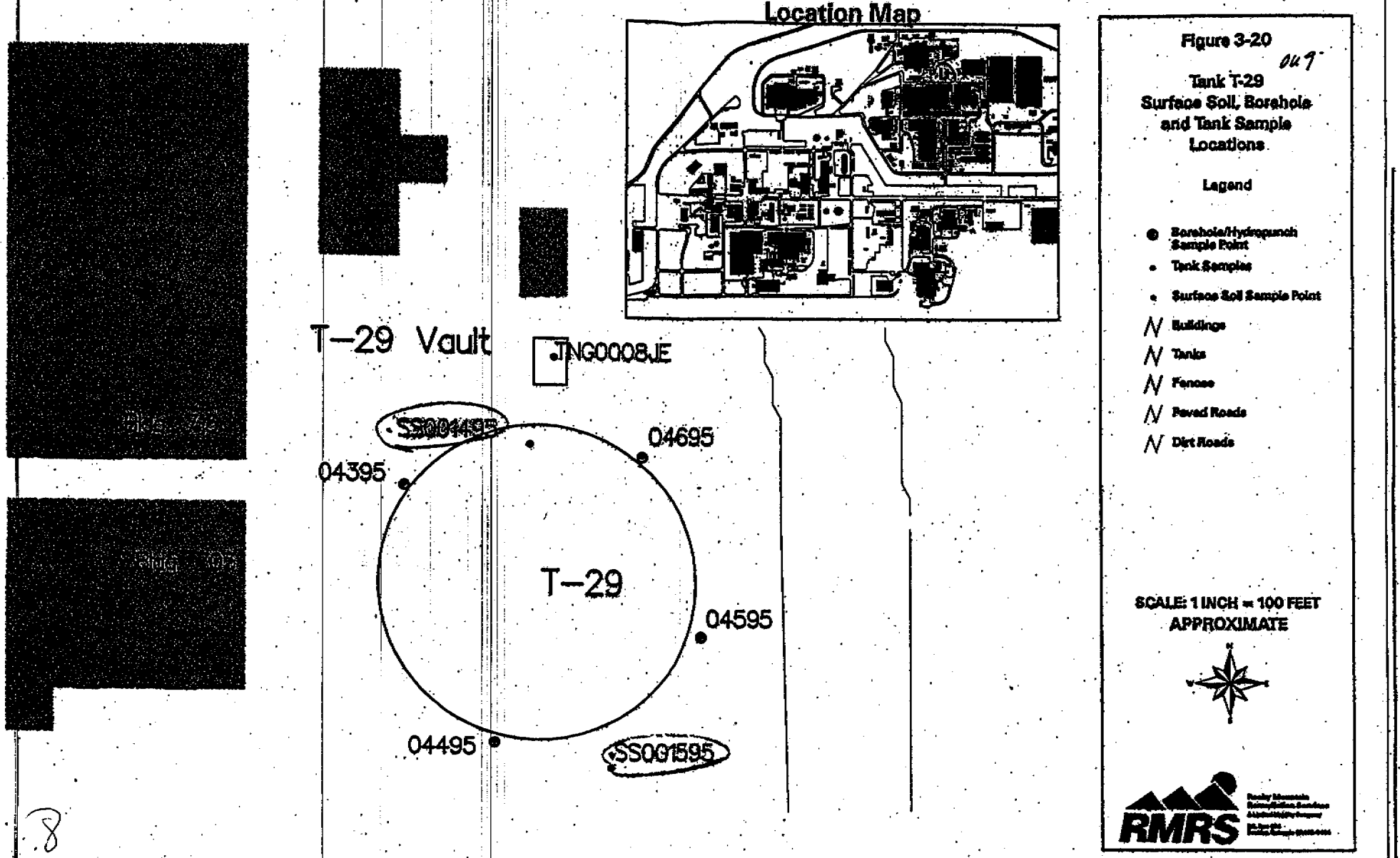

FIGURE 2